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GENERAL VIEW

OF THE

AGRICULTURE

OF THE

COUNTY OF BUCKINGHAM.

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GENERAL VIEW
OF THE
AGRICULTURE
OF THE
COUNTY OF BUCKINGHAM,
WITH
OBSERVATIONS ON THE MEANS OF ITS IMPROVEMENT.

BY
MESSRS. WILLIAM, JAMES,
AND
JACOB MALCOLM,
OF STOCKWELL, NEAR CLAPHAM.

DRAWN UP FOR THE CONSIDERATION OF THE BOARD OF AGRICULTURE
AND INTERNAL IMPROVEMENT.

*K. Academies.
etc*

LONDON:
PRINTED BY COLIN MACRAE.

1794.

GENERAL VIEW
OF THE
AGRICULTURE
OF THE
COUNTY OF BUCKINGHAM

OBSERVATIONS ON THE MEANS OF ITS IMPROVEMENT.

Messrs. WILLIAM JAMES

For Bents

PRINTED BY THE COMMISSIONERS OF THE BOARD OF AGRICULTURE
AND INTERIOR, IN THE YEAR 1841.

LONDON.

PRINTED BY CORN WALLIS.

1841.

TO THE READER.

IT is requested that this paper, may be returned to the Board of Agriculture, at its Office in London, with any additional remarks and observations which may occur on the perusal, *written on the margin*, as soon as may be convenient.

It is hardly necessary to add, that this Report is, at present, printed and circulated, for the purpose merely, of procuring farther information respecting the husbandry of this district, and of enabling every one, to contribute his mite to the improvement of the country.

The Board has adopted the same plan, in regard to all the other counties in the united kingdom, and will be happy to give every assistance in its power, to any person, who may be desirous of improving his breed of cattle, sheep, &c. or of trying any useful experiment in Husbandry.

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LONDON, MAY, 1804.

BUCKINGHAMSHIRE.

INTRODUCTION.

THIS is an inland county, separated from Berkshire on the south and south-west by the river Thames: on the west it is bounded by Oxfordshire; on the north by Northamptonshire; on the north-east by Bedfordshire and Hertfordshire; and by part of Middlesex on the east.

Its greatest length, from north to south, is about forty-five miles, its breadth about eighteen miles, and its circumference one hundred and thirty-eight miles, containing 518,400 statute acres of land.

Its chief rivers, from which it derives great advantages, are the Thames, Ouse, and the Coln. There are several other smaller rivers on which flour and paper-mills are erected; and the canals now making through different parts of the county will be of essential service to it, as by them the various products of its interior parts will more easily be conveyed to the metropolis, as well as to the distant market towns through which, or near which they may chance to pass, to the ultimate increase of agriculture and commerce.

The air is reckoned very wholesome, particularly about the Chiltern hills, the soil of which is chalk; that of the vale is rich loam, strong clay with a layer of loam upon chalk; and this will more clearly appear in our account of the several parishes through the county, in each of which common-fields prevail.



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It will be found, that in order to render this Report as perfect as possible, no pains have been spared to ascertain with precision, by ocular proof, the facts and circumstances we relate, trusting as little as may be to the incongruous accounts which have hitherto been given us. As our inquiries, therefore, have for their object the information of the Board, and the consequent good of mankind, these inquiries should in all reason interest the public even before they have attained the end proposed. It is true, that success is the principal thing that influences the opinions and acknowledgments of men; but surely some regard ought to be paid to the cares, the pains, and the labours of those who are assiduously devoted to the service of mankind, in whatever line of life their endeavours may have been exerted. Every man has his walk chalked out by the great hand of Nature, and he best fulfils his duty who adds something to the general stock of improvement and knowledge. If then the spirit that has presided over this noble undertaking of the Board of Agriculture, should give birth to new and useful experiments, or even agreeable projects, and become the occasion of any discovery, the public will eventually reap the benefit, and the Board the greatest reward that can be bestowed—the consciousness of having laboured for the good of mankind.

The Nature of the Soil.—It appears that the county is principally composed of rich loam, strong clay and chalk, and loam upon gravel. As to the first, its ability to produce good crops without the assistance of much manure, is evident from the uniform verdure of the herbage (as it is chiefly applied to the dairy, farming, and only occasionally mowed) and the very great supply of butter which is produced from that land. To cultivate this, therefore, in arable or in any other way, would, perhaps, in no instance so well answer the purpose of the farmer, and the great increased consumption

which there is for this article of life, makes it desirable that such land as is fitting for the purpose should be appropriated to it; and we shall shew hereafter, that independent of so large a portion of land as this will take, there will still be enough, under a proper system, for all the purposes of grain and wood. With respect to the strong clays, much of that is in grass also; but as from the nature of it, it must be cold and wet, and thereby produce a sour and coarse herbage, it follows in course, that to render all such lands productive, and to supply the place of more congenial soils, such steps must be taken as are most likely to answer that end. It is an admitted fact, that ungrateful and barren soils, when mixed together, often produce good and plentiful crops; and it is equally true, that as the earth contains several heterogeneous particles, these likewise concur to promote vegetation. The way, therefore, to procure fecundity is to supply the earth with plenty of these nutritive particles, and then to dispose the soil in such a manner, as that it shall not present any insurmountable obstacles to the tender fibres of young roots, which necessarily require freedom to expand and lengthen themselves, in proportion as they swell and grow, which space nature never fails to afford in proportion to the size and wants of the plant. It will follow, then, from hence, that the mixing of soils should be always made according to the tenacity or looseness of the particles which compose them. This being admitted, we find no difficulty in saying, that sand, gravel, and even small stones, may produce an abundant fruitfulness in a field, the soil of which is already too close, compact, and as it were, glutinous, and will, in a very great degree, alter the nature of the soil. A very effectual assistance will no doubt be rendered to all such soils, by draining, either by lowering and scouring the ditches (which will oftentimes alone be sufficient) or by regular and proper land-drains.

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Every attentive farmer will, therefore, use those means to amend the strong clays, by applying such opposite materials as are most likely to answer the desired end; but he must not expect to arrive at perfection in this art all at once; it may cost him some trouble, and some expence, and it will be well, if after all, he receives some reward for his pains, sufficient to convince him that the plan is practicable, and that perseverance will accomplish it.

The State of the Land how possessed?—In looking over the division of the manors of this county, it evidently appears, that originally they were in few hands; consequently that the property possessed by individuals was large, which is indeed to this day in some measure the case; but the great influx of wealth has of late years been the means of making that property more general. That this may tend to cultivate a spirit for improvement is very probable, since wherever gentlemen's seats, and the more opulent yeomanry, are found, it is in those neighbourhoods that the introduction of new systems or improvements upon the old are to be found: as a proof of which we need only say, that the southern part, though very much inferior to the northern part for richness of soil, yet in point of situation, from being elevated, dry, healthy, and pleasant, it derives considerable advantages, and which could not fail to invite, as the place of their residence, many noblemen and gentlemen of the first consequence. On the hills are the seats of the Earl of Inchiquin, Countess of Orkney, Lord Boston, and the very improving seat of Lord Grenville, together with other families of lesser note. In the same division, but in the lower parts, are to be found the seats of the Dukes of Marlborough and Portland, Marquis of Lansdowne, Earl Beaulieu, Sir John Dashwood, William Drake, Esq. Edmund Burke, Esq. Edmund Waller, Esq. William Clayton, Esq. These, with a few others, make up the principal seats in this division; and to them may be ascribed, in a great degree,

degree, those improvements that are visibly to have been made in the various parts of agriculture. In the northern part, the magnificent seats of the Marquis of Buckingham, the Earl of Chesterfield, Sir William Lee, Bart. form the chief models for improvement in the vale; and it would be a shame indeed, if, in the neighbourhood of those places, the same inattention to every advancement in the science of agriculture prevailed, as, unfortunately, it does in the more remote parts of the district: it is, however, not so; and therefore, where such advantages are to be derived, it were to be wished, for the benefit of individuals as well as for the good of the country, that the residence of men of distinction was more numerous, as well as more regularly dispersed throughout the kingdom.

State of Farms.—As so great a portion of this county is in dairy and grazing farms, it might have been expected, that many of them would have been very large: on the contrary, however, it appears, that there are not many of 500l. a year, two or three of 1000l. and the generality from 60l. to 250l. a year, throughout the county.

The Land how employed.—In the vale of the northern district, the land is composed of pasture, meadow, and arable. In the Chiltern it is principally arable, with a great portion of beech wood.

Grasses.—Among the grasses which compose these pastures, are to be found a mixture of the *poa annua*, *poa pretensis*, *poa aquatica*, *bromus mollis*, *anthoxanthum odoratum*, *plantago lanceolata*, *avena flavescens*, *holcus lanatus*, *panicum viride*, *alopecurus pratensis*, *triticum repens*, *agrostis alba*, *ranunculus acris*, *festuca elatior*, *trifolium repens*, and *trifolium pratense*: these are more or less to be found in the several pastures; but there are also a variety of noxious weeds to be met with in those meadows, of which little or no care is taken

It appears somewhat extraordinary, that, at this time of day, the only grass seed to be purchased, is that of the rye grass: that this grass is by no means sufficient for the purpose of laying down meadow and pasture land, every intelligent farmer will readily admit. No other grass, however, that we know of, is ever attempted to be saved, if we except the *holcus lanatus*, or what is called Yorkshire hay seed, which is very far from being a desirable one, growing always in large tufts, and is a soft woolly grass. Why, therefore, the rye-grass (or botanically speaking, the *lolium perenne*) should originally have been the only grass made choice of in preference to all the others, cannot at this time of day perhaps be sufficiently accounted for; and why it should still be so tenaciously adhered to, it is equally difficult to assign a reason, as a knowledge of botany has been so generally diffused. So many elaborate treatises have been written on the grasses, and other indigenous plants of this kingdom, in so full and complete a manner, that with a moderate capacity, and little trouble, any man might sufficiently satisfy himself which of them are best worth cultivating. As making a part of a rotation of crops in common with clover, &c. rye-grass may be well calculated; but certainly not in laying down land that is intended to remain for meadow.

In looking over a very ingenious miscellaneous tract, written by the celebrated *Stillingfleet*, the following apposite remarks appear: "It is wonderful to see how long mankind have neglected to make a proper advantage of plants of such importance, and which are, in almost every country, the chief food of cattle. The farmer, for want of distinguishing and selecting grasses for seed, fills his pastures either with weeds, or bad or improper grasses, when by making a right choice, after some trials, he might be sure of the best grass, and in the greatest abundance that the land admits of. At present, if a farmer wants to lay down his land to grass, what does he do? He either takes his seed indiscriminately from

from his own foul hay-rick, or sends to his next neighbour for a supply. By this means, beside a mixture of all sorts of rubbish, which must necessarily happen, if he chances to have a large proportion of good seeds, it is not unlikely but that what he intends for dry land, may come from moist, where it grew naturally, and *vice versa*. This is such a slovenly method of proceeding, as one would think could not possibly prevail universally. Yet this is the case as to all grasses, except the rye-grass, and what is known, in some few counties, by the name of Suffolk grass, or *poa annua*; and this latter instance is owing, I believe, more to the soil than any care of the husbandman.

"Now, would the farmer be at the pains, once in his life, of separating half a pint or a pint of the different kinds of grass seeds, and take care to sow them separately, in a very little time he would have wherewithal to stock his farm properly, according to the nature of each soil, and might at the same time spread these seeds separately over the nation, by supplying the seed-shops. The number of grasses fit for the farmer is, I believe, small; perhaps half a dozen or half a score are all he need to cultivate, and how small the trouble would be of such a task, and how great the benefit, must be obvious to every one at first sight. Would not any one be looked upon as wild, who should sow wheat, barley, oats, rye, pease, beans, buckwheat, vetches, turnips, and weeds of all sorts together? Yet how much less absurd is it to do what is equivalent, in relation to grasses."

Such are the words of this very intelligent author. Nothing more need be added to prove, that as much proportional profit would certainly arise to the farmer, by a careful and proper selection of grasses, as by a judicious choice of grain. In making such a selection the following kinds are recommended, viz. Meadow foxtail, or *alopecurus pratensis*, rough stalked meadow grass, or *poa trivialis*, and *avena elatior*, or tall oat grass. These affect moist land. Meadow fescue,

or *festuca pratensis*, *anthoxanthum odoratum*, or sweet scented vernal grass, and yellow oat grass, or *avena flavescens*—these delight in either moist or moderately dry lands. Smooth stalked meadow grass, or *poa pratensis*, crested dogtail grass, or *cynosurus coeruleus*, each of these affect dry pastures—And the quantity of each for use may be in the succeeding proportion: meadow foxtail, meadow fescue, tall oat grass, one pint of each; smooth stalked meadow grass, rough stalked meadow grass, yellow oat grass, half a pint of each; crested dogtail, blue dogtail, and sweet scented vernal grass, a quarter of a pint of each; Dutch clover, or *trifolium repens*, half a pint; red clover, or *trifolium pratense*, half a pint. Such an assortment as this, sown in the proportion of about three bushels to an acre, will, in a tolerably favourable situation, and on a properly prepared soil, form in about two or three years a most excellent meadow.

Sheep.—North Wiltshire withers for store, and Berkshire ewes for breeding, are the prevailing sheep of the county. Some of Mr. Bakewell's breed have been lately introduced, and promise success: but the wetness of the soil, occasioned by its tenacity, produces very serious losses by the rot. One gentleman farmer has assured us, that he had lost upwards of 600 sheep during the last eight years; and urges as a reason for not changing the breed, or improving it, the inaptitude of the soil to the support of sheep.

It is not, therefore, to be expected, that this district will make a conspicuous figure in the important article of sheep-farming; more especially as grazing and the dairy-farming seem there to be the favourite pursuit.

The Cows.—consist of the short horned Lincolnshire and Yorkshire breed; but very different from those which are kept for the milk, in the environs of the metropolis. These are bought in after the first or second calf is dropt, at an average

average of about twelve guineas: but the price is not an object, when put in competition with the quality of the animal, and therefore fifteen pounds is a very common price. The average quantity of butter produced from one cow, is about eight pound weight a week, in the summer; and about six pound weight in winter. The butter is sent to London to the different dealers, who contract for it at nine-pence per pound. of sixteen ounces) in the summer half year, and ten-pence halfpenny in the winter half year. The carrier finds baskets, cloths, &c. fetches the butter from the dairyman, and delivers it at one penny per pound; so that the price is increased to ten-pence and eleven-pence-halfpenny: therefore, every advance in price upon those sums to the consumer, is the profit of the retailer. An acre and an half, or two acres of land, are conceived to be sufficient for a cow, both summer and winter. The cows are in general milked by men; and the milk of different cows put indiscriminately together into square troughs, lined with lead, is skimmed twice a day, and the cream of the several skimmings put together into one tub or vessel, until the day fixed for churning, which is generally twice a week. They make use of a barrel churn, with two handles (one at each end) turned by two men, who will make from six pounds, to one hundred and twenty weight at one churning. A mill has lately been introduced into some of the dairies, which is worked by one horse, and turns one or more churns at the same time. This machine will be found very useful, and evidently only wants to be explained and made known, to become general; for the difficulty of procuring men to turn the churns would, by the use of the mill, be done away; and this would be no small accommodation to the farmer, whose men servants make many objections to this employment, (which is certainly very laborious) and generally set about it with an ill will, often quit it before it is finished, and as often contrive to get out
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of the way, when likely to be wanted for this operation; thereby obliging the owners to put off the churning till another day, to the great detriment, if not the spoiling of the butter; all which would be obviated by the help of any old horse about the farm; nay, in one instance, we observed a bull made use of for turning the machine, which animal appeared very tractable, so that no horse there was necessary. The regular motion of the horse is much preferred, not only for the above reason, but also as it quickens the operation of the butter, and makes the attendance of a man not at all necessary, the whole being left entirely to the dairy-maid. A sketch of one of these machines is here given. It may also be contrived to grind beans, malt, &c. at the time of churning. The dairies are kept with that exact neatness which must be pleasing to every inspector, and to which we are happy to pay our tribute of commendation.

The method practised in Devonshire of making butter from scalded cream (as will be explained in the survey of that county) the mode adopted in Ireland, and that practised in this district, differ so essentially from each other, that it might perhaps be advisable for the Board to suggest some experiments to be made, in order to ascertain which mode deserves the preference.

Calves.—In the neighbourhood of Medmenham, Hambleton, Little and great Hampden, &c. &c. a great number of calves are suckled; these are for the most part bought of the dairy farmers, who do not think it worth their while to suckle or to raise any as a supply against any deficiency which may be occasioned by death, &c. How far this may be good policy in them, they certainly ought to be the best judges. But from experience we know, and the vale too plainly proves it, that few men give themselves so little trouble as those farmers, and perhaps no set of men adhere more pertinaciously

ciously to old practices and particular customs than the farmers in general.

Hogs.—Every dairy farm fattens a certain number of these animals, with the skim-milk and butter-milk, without any other assistance, except when there is a scarcity of milk; and then barley-meal, beans, or pease, are used as a substitute. The usual time they take to fatten to a state to be consumed as fresh meat, is from four to six weeks.

Oxen and Cows.—These constitute the principal stock of the grazing farms; the former are composed of Yorkshire and Herefordshire beasts, which are bought in lean, from twelve to fifteen pounds per head; the latter are barren cows, purchased from the dairymen.

Perhaps (the Pevensy Level and Romney Marsh excepted) no land in the kingdom is better calculated for this purpose than the Vale of Aylesbury. Its amazing fertility soon makes a visible alteration in the appearance of the animal, and the extraordinary size they afterwards attain, is a proof of the quality and ability of the land. They are grazed about ten months, and then fetch from twenty to twenty-five pounds each; but when kept longer, as they sometimes are, some have sold for forty pounds. If grass becomes scarce, they are finished off with hay, and sometimes a mixture of oil-cake and barley-meal.

Watering of Meadows considered.—As to some countries nature appears to have been very sparing in affording them the power of watering their lands; so, to others, she has been exceedingly bountiful in this respect. The undoubted truth is, the wise hand of Providence has bestowed on each situation, throughout countries, kingdoms, and the whole globe of earth, its peculiar advantages; so as to make the

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good of the whole depend upon the contribution of its several parts.

In the district now under consideration, we find large tracts possessing in so high a degree the advantage of watering, that the farmer can flow his grounds when, and where he pleases, brooks and rivulets running through the greater part of these fine meadows, with few or no mills to interrupt or to controul him in the free application of their fructifying streams. Would it be believed, then, that excepting in the neighbourhood of one or two of the paper-mills, there is scarce one acre of land watered throughout the county? Concerning so singular a circumstance the Board may rest satisfied that we have omitted no opportunity of getting information; having made every possible inquiry among the most intelligent and best informed men.

One very respectable gentleman farmer, in the Vale of Aylesbury, assures us, (and this was confirmed by others) that their meadows were by nature so rich, that watering, as it is practised in other countries, made their crops of grass so rank and coarse, that two acres of their natural meadow-grass, not watered, though less in quantity, was superior in quality; and worth more than two acres and a half of similar quality of meadow, in a watered state.

There the richness of the soil pleads something of excuse for the farmer, in the same manner as the mines of Mexico and Peru for the indolence of the Spaniard.

Land how employed. As we before observed, there is a large portion of this district employed in husbandry.

On the southern part, the land is generally high, and the soil light, either on gravel or chalk, and appears to be under as good management as that soil is capable of. The farmers are at great pains and expence in purchasing manure,

nure, and in collecting every sort of materials that constitutes or assists in the increase of manure; and that is not only applied with judgment, but is aided by the most modern agricultural improvements, as well by repeated cross ploughings, and drill husbandry, as by the cultivation of every sort of green meat, as turnips, &c.

The grains chiefly grown are wheat, barley, oats, beans, and here and there saintfoin.

In the northern part of the district, and even as far as Northamptonshire, a very different system of agriculture prevails from what we have noticed in the southern part. Perhaps no two districts can differ more in that respect, than do the two divisions of this county. As we have observed in the former a sedulous attention to the best modes of improvement; so we must remark in the latter, a general appearance of bad management. In the former, the lands are ploughed in a husband like manner, in such straight and moderate sized lands as are most suitable and convenient for the nature of the soil: the latter, though in possession of as fine a loamy soil as is in the kingdom, plough their lands in a compleat serpentine form, to the middle of the ridge, which they make so awkwardly high, that they become dangerous to waggons or carts, either carrying manure to the land, or carrying the crop from it.

Such is the custom about Aylesbury and Buckingham. So rich and fertile is the soil there, that we were assured it was considered a disgrace to a farmer, to suffer a heap of manure to be seen at the end of his field, to plough in straight lines, to disturb an ant-hill on his pasture, or to permit more water than falls from the heavens to pass over the meadow.

Where such prejudices as these obtain, what can be expected? We shall excite no wonder, by remarking after this, that there are hedges spreading over from twelve to twenty

feet of ground, going from year to year without lopping; that the ditches are so neglected that little more than traces of them are to be seen; and that the head-lands, at each end of their fields, are raised so high above the lands, by the quantity of soil which is from time to time brought out by the plough; and are withal so wide, and yield so little, as not to be worth notice.

Ask a Suffolk, a Norfolk, or a Kentish farmer, if he would suffer these things on his farm? He would instantly say, No; I will lop as many of my hedges, annually, as will yield me fuel, and serve various purposes to my farm. I will scour my ditches annually, which will not only drain my land, and keep it dry, but furnish me with a certain portion of manure. I will plough up some of my head-lands annually, and lay the cleanings of my ditches, the scrapings of the road, whether sand or chalk, together with the stubble of my land, and the soil from the farm-yard; all these I will mix together, and make a body of manure invaluable, and ready to be applied to any purpose I may require. Such would be the language, and such ought to be the practice of every prudent man.

In one part of the county we were informed, that the farmers had continued to sow the same kinds of grain for so many years, without having it in their power to procure a sufficiency of manure, and by being restricted from sowing clovers, &c. to enable them to keep sheep to fold their land, that they were reduced from a state, which among them might be called opulence, to absolute penury; the land though good in itself, being worn out, and incapable of bearing grain any longer.

Rotation of Crops considered. Throughout the district the practice is nearly the same, turnips fed off, barley and seeds; the latter mowed the first summer once, and grazed, ploughed up, and laid fallow for wheat. This is the practice about the

the hamlets of Chesham. In the neighbourhood of Wendover, the rotation is wheat or pease, barley, sometimes oats, and fallow upon the chalk, wheat, beans, and fallow upon the clays.

In the neighbourhood of Hardwick, the custom of the leases confines the farmer to three crops and a fallow; and one farmer in that quarter had received notice to quit his farm, because he had deviated from the specific terms of his lease *in sowing clover*. In the parish of Weedon, which is all common-field, the rotation is two crops and a fallow; wheat or barley, beans, then fallow. It is to be remarked, that few of the farmers have here even a home stall: from being thus confined by their leases to so unreasonable a course of husbandry, the idea of green crops is entirely removed, unless it be in a few particular places; and upon those farms which are occupied by the land-owners, it would be lamentable indeed, if these practices prevailed among them; fortunately, however, that is not the case, and therefore their farms wear a very different and more pleasing complexion.

Of green food, Sir William Lee cultivates a variety of sorts, that they may succeed each other, and he has found the succession to answer for several years: they are in the following order: Turnips sown broad-cast, properly hoed, and in sufficient quantities, in moderate seasons, to last until March; turnip-rooted cabbage succeed these until May or June; after that lucerne, which is cut three or four times, and continues until turnips come in again. He is also constantly provided with the mangle worzel, or root of scarcity, (though any other sort of common beet would answer the same purpose) the leaves of which are very luxuriant: those, together with the roots, are given to his cattle, in case his turnips are not sufficiently forward to succeed the last cut of lucerne. Sir William is of opinion, that these successive crops are admirably calculated for his dairy cows, as he finds thereby the butter incontestibly improved in taste and sweetness,

ness, and the quantity rather increased, and that at all seasons it resembles spring butter. It is also to be understood, that he never gives his cows hay.

Fallowing, and its Consequences.—From what has been before said, it will appear that fallowing makes a very particular practice in this county. In a variety of the inclosures the tenant is confined by lease to three crops and a fallow; in the common fields to two crops and a fallow. Whether fallowing is the most eligible plan for the public, upon the broad ground that every acre of land should be as productive as possible, we have endeavoured to shew in our Report of Surrey; so that it is hardly necessary to repeat here, that just so much is lost to the community, as that land in a state of cultivation ought to have produced. In the present case, considering the impolicy of the form of the leases, which oblige the farmer to observe a certain routine of crops, and is therefore too confined to answer any good purpose, as it prevents him from sowing clover and other green food, and thereby precludes him in a great degree from making a sufficient quantity of dung to manure, either in the yard, or by folding sheep: considering these things, fallowing seems to be the only resource for recovering, in a certain degree, the stamina to the soil, and as such (though not excusable) still it is (with respect to the farmer) somewhat admissible. But in regard to the landlord, can any policy be more contracted, than such a system? And can it be expected, that under such compulsory obligations, the farmer can either make so large a produce as if a greater latitude was given him, or that he can afford to give so large a rent. It follows therefore, that in the first instance the landlord is not benefited so much as he might be; the farmer has less opportunity of increasing his profits; and finally, the public are the greatest sufferers thereby.

Manures,

Manures, and how applied.---It has already been observed, that in the northern part of the county, the extreme richness of the soil in a great degree precludes the necessity of manuring, especially upon the meadow lands, and we have mentioned the ideas of the farmers as to the expediency of manures upon their arable land, which so long as it is one year in two or three in fallow will not enable them to manure, and therefore that accounts for the few heaps of compost that are to be met with throughout this part of the district. In the neighbourhood of Brickhill, marl is found of a rich quality, and perfectly blue: this is used as a manure upon the lands, loams or gravels, and is applied at the rate of thirty to forty cart loads to an acre, when the land is in the tilth, or in fallow, after the first ploughing, which generally happens in the months of April or May: it is at a certain time ploughed again, harrowed, and then sown. Peat-ash has been found an uncommonly good meliorator of the strong clays, and has been used also in the parish of Brickhill. In the environs of Chesham and Amersham, &c. yard-dung and rabbit's dung are used, as are hair and hoofs brought from Smithfield (at a very great expence) which are found to be great fertilizers of these cold and strong soils. The sowing of ashes and soot, brought from London, upon the young clover and wheat, at an expence of two pounds per acre, is found to answer very well. Here then we shall beg leave to observe, that as experience daily shews, there is scarce an article in the vegetable, animal, or fossil kingdom, but what will act as a manure upon some land or other, so it should make a part of the study of every ingenious man concerned in the improvement of land, to find out by actual experiments such manures as are best calculated for each particular soil; vegetable oil, for example, has been strongly recommended; why not animal oil also? And why not the bones and shells of fish, ground or calcined?

Implements

Implements.---Loose handle swing ploughs, drawn by five and sometimes six horses, and low wheel ploughs, both of them heavy and clumsy, at least one horse's draught more than the common ploughs. In the southern parts they use the Rotheram, the Kentish turnwrist, the swing, and the high wheel ploughs. The rollers in the north are much too light, nor are the bush harrows well contrived, or sufficiently used.

The carts and waggons are upon the common construction, and their great fault is the narrowness of their wheels, which the cross roads are an evident proof of. Cook's drill but too partially introduced.

Oxen or Horses, which used.---It does not appear that oxen are now used in any part of this district; it seems they have been often tried in various parishes; but from the flintiness of the land in some parts, and the heaviness in others, they are grown into disuse; besides, the farmers have found it necessary to keep a certain number of horses to carry their produce to market, and therefore, as there are several days in which they are not employed to do that work, they have less occasion for oxen. The horses are of the heavy black kind, and are bought in at two or three years old; these may be very well calculated for the southern part of the county, where the roads are hard and firm, and where heavy loads may be imposed upon them, but certainly not in the strong clays of the northern part, where dead pulls are not so efficacious as active draughts. Besides, the slowness of their motion is an objection to them every where.

Seed-time and Harvest.---Little difference is discernible between the seed-time and harvest of that part of the county which extends itself from Colnbrook to Uxbridge, through Wendover to Stoken Church and Henley, and that part of the adjoining county to the southward. But no pre-

cise period can be fixed for either, to the northward of Wensdover and Buckingham, because it is so dependant on the wetness or dryness of the season, that it is either earlier or later according as the season is more or less wet or dry. In the vale, the little arable land that is attached to each dairy or grazing farm, is considered in so secondary a light, that no criterion can be formed as to either the seed-time or the harvest.

Land, whether inclosed.---According to the statistical account, which accompanies our description of the common fields, it will be found that the greater portion of the land is inclosed, and that very large tracts are still open; but as the inclosures are every day going on, it is to be hoped, that in a few years there will not be seen an acre either of waste or of common field that is not inclosed.

Inclosing, and its Advantages.---In every conversation we have held with different gentlemen in the several parts of the county, on the subject of inclosures, they have uniformly given it as their opinion, that the advantages already derived, and consequently still to be derived by inclosures, are an addition of rent to the landlord, an increase of produce to the farmer, in quantity and quality, and an improvement on the face of the soil, by draining, &c. It affords also shelter to the crops and cattle, and security to the former against the depredations of the latter, as well as against the bad husbandry of his neighbour; but perhaps as material a consideration as any may be, that it gives to the farmer the liberty to manage his land in such way as he finds most convenient, without paying any regard to what may be the practice of his neighbour.

We might ask, What would have been the state of agriculture throughout this kingdom, at the present day, if nothing but open fields were to be found? How inadequate

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would be the quantity of grain produced, to the support of the present population, if two crops and a fallow was the custom throughout every parish? And which way would the middling class of people have derived any fuel in the interior parts of the kingdom, at a distance from peat and woodlands, and the farmer so many useful materials for agricultural purposes, if no inclosures by hedges, and trees in the hedge-rows, had ever taken place? Let any one consider these things seriously, and the conclusion will be unavoidable. If agriculture has attained to its present height through the means of inclosures, (for with these the common fields are no where to be compared) it follows, that the more we inclose the more general will be the improvements.

Size and Nature of the Inclosures.---In the dairy farms, the sizes of the fields, in a state of pasture, vary from ten to twenty acres, and some are thirty acres and upwards; the arable attached to those farms are from four to ten acres. This in some measure confirms what has been before said, that the arable farming makes but a small consideration with those farmers, or else they would not be satisfied with fields of so small dimensions for that purpose. In the southern part, the inclosures are upon a better scale, being from eight to thirty acres; but speaking more upon an average, perhaps from twelve to eighteen may be near the mark as to the arable, and from four to ten acres as pasture, according to the size of the farm. The inclosures in this division have not so good a soil, but they have a proper attention paid to them, which makes up in a certain degree for every other deficiency. As riches are the parents of luxury, so indolence is too often the consequence of the over-richness of the soil, which requires less trouble, less expence, and less ingenuity in the farmer.

Inclosures,

Inclosures, and their Effects upon Population.---In those parishes where inclosures have taken place within the last twenty-five years, such as Muresly, Swanbourne, Hoggeston, Drinton, Cublington, Whitchurch, and various other parishes throughout the district, it is admitted that the population is increased, although some of them are in dairy and grazing farms, which requiring fewer hands to manage them, are less likely to increase the population ; but the fair way of arguing this point, is to consider the increase of produce, which is certainly very great since the inclosures have taken place, consequently the consumption must be greater, and an increase of consumption implies an increase of population. This has long been our mode of reasoning on the subject ; and in making actual inquiries we have found the reasoning just.

Common Fields, and their Consequences, as applied to the present Deficiency of Grain for the Support of this Country, to which we shall add the Difference of Rent also.

As it is a subject of no small importance to the grand object which the Board of Ariculture has in view, we have been the more particular in ascertaining, with as much exactness as possible, short of actual measurement, the quantity of common field lands throughout the district, and the proportion of rent they bear to the inclosed lands in the same parish. Entering the county at Colnbrook, the first parish is Horton ; the number of acres in common field is about 500, the soil good loam ; Wraysbury, adjoining, contains about 200 acres, and a similar soil ; Datchet 750 acres, Upton 1500 acres, Eton 300 acres, Dorney 600 acres. The soil in these parishes is generally good, and with the assistance of manure, which is procured from the town of Eton, the crops are for the most part abundant. The proportion of rent is nearly double. The occupiers of the foregoing common fields have exploded entirely the old usage of two crops and a fallow, and

have now a crop every year ; but turnips are not at all cultivated upon them, as the fields are common, after the grain is carried until the seed time.

Burnham parish may contain 800 acres of excellent land, under the same mutual agreement as to crop as the preceding. Cippenham, a hamlet in Burnham parish, has 200 acres, which let from 20 to 25s. and would let for 35s. if inclosed. Farnham has 300 acres, Wexham 100 acres, Langley 600 acres, Iver 400 acres ; in each of these a good soil. Stoke 200 acres, Hedgerly 270 acres, but indifferent land, occasioned by the want of proper ditches to drain it. Woburn 400 acres, present rental at 20s. an acre, but improved, would be worth from 30 to 35s. Taplow 200 acres, Little Marlow 140 acres, Great Marlow 400 acres ; the soil, clay, loam, and gravel ; present rent 12s. an acre ; proffered rent, if inclosed, 30s. These fields being situated near the river Thames, are liable to much depredation from the loose people employed on the river, which evil, it is conceived, an inclosure would tend to remedy. Medmenham and Hambledon contain 240 acres, Sanderton 400 acres, Horsingdon 300 acres, Bledon 370 acres, Prince Risbro at least 2500 acres, good loamy soil ; present rent 12s. improved 20 to 25s. Monks Risbro 2300 acres, Towersey 1000 acres, Kingsey 250 acres of strong cold clay, some parts a rich loam. Aston Sandford 400 acres, Little Kimble 500 acres, Great Kimble 350 acres, Stoke Mandeville 400 acres, Ellsborough 1400 acres, the property of ten persons ; rent 10s. would realize 20s. in an inclosed state. Little Hampden 500 acres, loam, clay, and gravel. Great Hampden 200 acres, Great Missenden 300 acres, upper part strong clay, the lower part gravelly loam. Little Missenden 200 acres, Hitchendon 350 acres, Wycombe 200 acres, Chesham 300 acres, light loamy land full of large flints, strong clay and chalk. Amersham 100 acres, rent 10s. inclosed would be 20s. Wendon 3000 acres.

About

About fourteen years ago the parishioners came to an agreement, and obtained an act to lay the small pieces of land together: one farmer at that period had eighteen acres, in thirty-one different pieces, and at wide distances from each other. When the division took place, the balks were of necessity ploughed up, by which a great portion of the sheep-pasture was destroyed. It became then expedient, and it was agreed upon at a public vestry, to sow clover and turnips as a succedaneum for the balks.

Two years since, one of the farmers, occupying sixteen acres of these common fields, procured in the month of May a large flock of lean sheep, which he turned on the clover crops; being then nearly in bloom, the greater part of which they devoured. Perhaps this unprincipled act will ultimately benefit those it so immediately and materially injured, as it has stimulated the other proprietors to think of means for preventing such abuses in future. They have accordingly applied to Parliament for an act to inclose the whole; and as the bill carries upon the face of it great public good, as well as great personal convenience to all the parties having property there, there is no doubt but that it will shortly pass. The soil is principally composed of chalky loam, and clay.

Hatton contains 400 acres, strong clay, and for want of circumferential ditches, holds the water in the furrows, covering a great deal of ground, which it chills, and greatly injures the plants. Ashton Clinton contains 1000 acres, soil kindly loam. Weston Turville 800 acres, Drayton 600 acres, Buckland 500 acres: these parishes nearly assimilate in soil, and the inclosures are double the rent of the common field.

Aylesbury contains 800 acres of strong clay, Dinton 1000 acres, Haddenham 2300 acres; present rent 14s. but capable of being made worth 25 or 30s. Long Crendon contains 2300 acres, Ickford 50 acres, Oakley 200 acres, Edgecot 1000 acres, Marsh Gibbon 1500 acres, Queynton 1400 acres:

acres : all these are loam and clay. Quarrendon is an inclosed parish, and is fine rich grazing land, noted for feeding large beasts ; it is much too rich for the dairy, as it fattens the cows instead of keeping them in a state for giving much milk. Grandborough contains 1200 acres, cold wet clay, found to rot the sheep, which bad quality inclosing would in a great measure remove.

The wastes and balks in these common fields occupy a great space of ground, and yield but very little of any kind of produce.

Steeple Claydon contains 2500 acres, strong wet clay. The custom is here, to have one crop and one fallow. About fourteen years ago, the proprietors came to an agreement to have two crops and a fallow, but before the expiration of ten years, one of the farmers broke through the agreement, and turned in his cattle upon the crops of beans, oats, and barley, in which plan he was soon followed by the rest of his neighbours, and the crops were in consequence totally destroyed on that part of the field, which, agreeable to the ancient custom, would have been fallow. These fields are in a very impoverished state, the farmers sell all their straw, are careless about manure, and depend solely upon fallowing ; the rents, therefore, do not exceed five shillings an acre.

Adstock has 800 acres, clay soil. Padbury 1500 acres, Gaucot, a hamlet in the parish of Buckingham, 676 acres, Maids Moreton 2000 acres, a cold but gravelly soil. Akely 1000 acres, college land ; an inclosure would improve it one-third, as the farms are very much intermixed. Thornborough contains about 3500 acres of common field ; only 200 acres in the whole parish are inclosed. Sheep are very subject to rot here. Great Harwood has 2000 acres, Little Harwood 800 acres ; that part that has been inclosed, is in dairy farms.

Weedon contains 2000 acres, which form the whole of the parish. The farms are from thirty to one hundred pounds

per annum, and many of them even without a home stall. Bearton and Hulcot common-fields were inclosed about fourteen years since, and the rents have increased ten shillings per acre.

Wingrove contains 1800 acres, Aston Abbots 800 acres, Wing, with its hamlets, about 2500 acres, the soil loam, clay, and gravel; lets at seven shillings and sixpence per acre; the improved rent would be twenty shillings.

Slapton contains 1200 acres, Eddlesborough 3000 acres, the soil loam, clay, and chalk; Chedington 1300 acres, Ivinghoe 2000 acres, Mersworth 2500 acres, the soil a light black mould. Pittlesthorn 3000 acres, the soil loam and clay. Stewkley 3500 acres, loam, clay and gravel. Drayton Parsloe 1600 acres, Newton Longville 1500 acres, the soil a cold clay. Little Brickhill 600 acres, strong loam and clay, fit for dairy farms. Bletchley 1000 acres, loam, and clay. Waddon 1000 acres, the soil fit for pasture and grazing farms. Castle Thorpe 1500 acres, now inclosing. Lavendon 1000 acres, good loamy soil upon limestone, cold. Brayfield 700 acres, loam and gravelly soil. Clifton Reynes 400 acres, Newton Blossomville 800 acres, good loamy soil. Emberton 1000 acres, good manageable soil.

The cow commons are large, and the soil good, but overrun with rushes, and very apt to rot the sheep; but this is generally the case with all the commons belonging to the commons-fields in this county.

Sherrington contains 1000 acres, good loam. Astwood 600 acres, Newport Pagnall 1600 acres; of which there are fifteen proprietors; soil various, deep, rich loam, strong clay, and gravel; average rent ten shillings per acre. But as these fields lie contiguous to the town, they would, if inclosed, let for twenty or thirty shillings per acre.

Mr. Hooton of Ickford Abbey, a very intelligent gentleman, and a practical farmer, occupying land in these fields, has lost, upon an average of the last eight years, seventy
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sheep by the rot annually, entirely owing to the wetness of the commons; and he thinks (as do other gentlemen and farmers) that it is in vain to attempt any improvement in their breed, while they are subject in so great a degree to so destructive a malady. Inclosures would, in this case, go a great way towards removing the evil complained of. Mulsoe contains 800 acres of stiff clay.

Putting these several parcels together, then, we find that the county of Buckingham contains about 91,906 acres of common-fields, exclusive of the wastes, which we shall hereafter describe.

From the complexion of the agriculture of these fields, it is evident that much remains to be done; and, perhaps, there are few counties in this kingdom, taken in the aggregate, possessing a soil more peculiarly adapted to the growth of grain, artificial grasses, turnips, cabbages, and every species of green meat, together with all sorts of forest trees; and that with so little labour and expence.

To shew the importance of inclosing these common-fields, we shall take the liberty to state (as we did in our Report of Surry) the probable increase of produce; and if we mistake not in our calculation, the country, by the inclosures in question, will find an addition equal to 60,000 quarters of grain annually. We are led to make this calculation from observing, in the major part of these fields, the paucity as well as poverty of the crops in general.

As this Report may fall into the hands of some gentlemen who may not have seen our Report of Surry, it will perhaps be right to recapitulate here the substance of our former arguments on this head. We there stated, that upon a very minute inquiry among the farmers, proprietors, and occupiers of land, as well as others throughout that district, we were led to conclude, that according to the customs of those fields, a greater produce than what generally happens could not be expected. But say they, " Give us leave

to inclose them, and do not restrict us to so unreasonable a system of cropping, and we will give an increase of rent equal to at least one half, generally two thirds, and in many instances double. What then does this prove? Why, most clearly, that inclosures must be more favourable to agriculture, and of course more beneficial to the community, as well as more advantageous to land-owners than open fields. They would allow a greater latitude of cropping; manure would be bestowed in a variety of ways, greater crops would be produced, the strong and wet lands would be drained, more sheep would be supported, and these with less danger of the rot; all which would conduce to enable the farmer to give the increased rent we have described.

The way in which we make our calculations respecting the common-fields in question, is this: We have observed that there are about 91,906 acres now in common-fields; we allow upon the broad scale, the odd 906 acres to be taken away for hedges and ditches; there will then remain 91,000 clear acres for arable, &c. and as some of it may be required, or at least may be taken and laid down to pasture, take out 11,000 acres, which perhaps may be the utmost that may be required for that purpose, it will then leave 80,000 acres for arable only; and every bill that is passed for inclosures, should have a compulsory clause, obliging the parties, under certain penalties, to plant a certain number of oaks in the hedge-rows (wherever the soil will at all suit oak) and also to preserve them when planted. We would have remarked, that we do not take any of the common-fields for the sole purpose of making a wood. We before said there were 80,000 acres left for arable; these we divide by four (judging that inclosures will increase the present produce, at least in that proportion) that gives 20,000; and this multiplied by three (which is rather less than the average produce per acre of the present inclosed land, consisting of wheat, barley, oats, &c.) will yield 60,000 quarters of those sorts of grain, over

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and above the present produce, and of the value of 81,000l. being estimated at the price of twenty-seven shillings per quarter, which is an average price of the three sorts of grain, taken for three years, as nearly as may be. It will then stand thus :

To 91,906 acres of common field	By 906 acres for hedges, &c.
deduct 11,906	By 11,000 acres for pasture.
80,000 acres	11,906 acres

Acres.	Acres.	Quarters.	Quarters.
take $\frac{1}{4}$ of 80,000 ==	20,000 + by 3 ==	60,000 of grain	
		Quarters.	
		60,000 at 27s. per qr. =	£81,000

It is to be observed, that no value is put upon the 11,000 acres for pasture, nor upon the 906 acres allowed for the hedges; each of which will unquestionably bear as much proportionate value, as that which is appropriated to the arable land.

We trust we have here clearly and sufficiently shewn the great good that would arise to this kingdom by inclosing the common fields, and where the divisions of them are proposed, we have in their proper places taken notice of it; and with regard to the difference of produce, we shall add, that wherever a liberal system of cropping is allowed, we should have been perfectly justified in setting down the increased produce much greater than what we have above stated.

Waste

Waste Lands, and their Improvements.—From the extent of the county, it might have been expected, that a much greater portion of waste land would have been met with. It does not, however, appear to be above 6000 acres; a quantity very inconsiderable indeed, compared to what is found in other districts. But even this quantity is sufficient to deserve an attention towards the inclosing, cultivating, and planting thereof; as it might be made to supply wood for fuel, for timber, &c. or, where more agreeable, for arable. But as the former appears at present of more consequence than the latter, inasmuch as the country every where falls short of a due succession of timber, and that necessary national article requiring a long time to arrive at a state for use, it might be adviseable, perhaps, to appropriate the whole (as near as may be) of these wastes to the growth of timber only. We can import corn, when we cannot import English oak.

We shall, therefore, particularize the wastes, quality of the soil, the number of acres which each contains, and that will enable us to form a right judgment of the propriety or impropriety of planting them. But we should also previously remark, that the navigable canals now making through the county, will at all times prove a ready and cheap conveyance for timber, either to the metropolis, or to the dock-yards; and as such will open a new source of wealth to individuals, as well as to the county.

Entering the district in the same part as we did to ascertain the common-field land, the first waste that presents itself is that of Eton, containing about forty acres, at present in good pasture, the soil a rich loam. Farnham waste is about 300 acres of middling soil. Iver Heath, and the petty commons, amount to 1150 acres; the soil loam, clay, and gravel; and those parts that are wet, common ditches only would ef-

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factually drain. Fulmer is 600 acres; the soil clay, chalk, and gravel, covered with heath, brambles, and trumpery of all sorts: this joins to Stoke Heath, which contains about 1000 acres; the greatest part of which is excellent land, the bottoms are black mould, and the hilly parts incline more to gravel. Taplow is 150 acres of good loam, and part gravelly soil. Wycombe Heath is 1500 acres; the soil is various, loam, clay, flints, gravel, &c. upon which grow furze, fern, brambles, and trees of no value. Amersham is 250; loamy soil; present produce only fern and furze. Lee 300 acres, covered with heath and furze, and its soil loam, gravel, and sub-soil chalk. Buckingham 150 acres, Great Harwood 560 acres, strong soil. The whole of these wastes amount to 6000 acres.

It may be objected, that inclosing the waste lands would be considered as materially affecting a particular class of people; but before we can agree to a position so indefinite, and not supported by any proof, let us, for a moment, take a view of the right which these people claim to the commonage or herbage, and see whether the argument will not hold diametrically and pointedly against them. It will be found, upon a very minute inquiry, that generally speaking, few or no persons have a right of commonage, but those who hold the land; and consequently this right, *ab origine*, belongs to the landholder. This being admitted, the due quantum of each holder's commonage would scarcely be worth having, provided each man assumed to himself no more than he had a right to do: therefore, while it is observed, that perhaps not more than one in ten takes this right, and that the tenth takes ten times his share, it follows, that the many are injured; and that every attempt at inclosures will be resisted by him, who reaps the greatest benefit.

Again, it may be objected, that so great an increase as bringing the wastes into a state of cultivation, will affect the landholder,

landholder, by reducing the rent of land ; but supposing it did, is that a consideration with the public ? And ought that to be put in competition with the good that will arise from it, by increasing the quantum of provisions of every kind, the prices of which it would also tend to reduce, to the very great comfort and ease of the lower class of people, who, in their present situation, can hardly procure the necessaries of life ? Has it been upon such narrow principles as these, that this country has attained to its present height in the political scale of Europe ? Certainly not. But to remove every ground of fear from the land-owners on this head, we say, that admitting it should be the determination of Parliament to inclose the wastes ; yet from the nature of such an undertaking, as well as from their several situations, it would be impossible that the whole of them could be brought into an immediate state of cultivation ; and therefore the decrease in the value of land could not presently take place. But we have the authority of facts to say, that no such reduction of value need at any time be apprehended, since, it is well known, that (generally speaking) the value of estates is by no means decreased in the respective neighbourhoods of those large inclosures, which have already taken place in the different parts of the kingdom.

The only remaining objection against inclosures, is, that the number of cattle, as well as sheep, would thereby be lessened, and that the quantity of wool must of course be diminished, since those who had before a right to commonage, would not be able to keep so great a number of sheep as usual. But to this we answer—That whatever may be the case in other counties, yet in this we are speaking of, the quite opposite effects would most probably follow ; and for this obvious reason, the soil of these wastes, as well as common-fields, is strong, and holds the wet, so that cattle are little better than starved ; and the loss annually sustained by the rot in the
sheep.

sheep, occasioned by the wetness of these commons, is very great, and the wool of a very inferior quality; whereas, the inclosing the wastes and the common-fields would be the means of draining them all, and would make them wholesome and dry; and even without taking any of the wastes into consideration at all, more sheep and more cattle would be kept in the common-fields alone, when inclosed, than are now to be met with in the whole district! Many more arguments might be brought forward to support the expediency of inclosures; but we shall content ourselves with one more, and leave the Board to judge whether it be forcible or not.

If it be true that the population of this kingdom is increased to a very great degree, and that the supply of corn of every denomination, as well as live stock of all sorts, be in no respect equal to its consumption, it must be an object of the first importance to discover, by what means the supply can best be increased, so as to answer all the purposes of internal preservation; and considering all the existing circumstances of our country, it is clear, upon the very face of things, that one principal step towards attaining this end, would be the inclosing of wastes, inclosing the common-fields, and removing those obstacles which clog the operations of the farmer.

Rate

Rate of Wages.—The rate of wages in the interior parts of the county, is as follows; yearly servants: head men eight guineas; boys three guineas; day labourers one shilling per day.

In the southern parts ten guineas are given to the head men; four guineas to the boys; and nine shillings a week to the day labourers.

The ploughmen go out at seven o'clock in the morning, in the summer, and return at three in the afternoon. In the winter, from eight to three.

The labourers, in the summer six months, work from six to six, taking half an hour to breakfast, and one hour at dinner; and from light to dark in the winter six months, taking the same time at meals as in the summer.

Draining of Land, and its Consequence.—The soil of the dairy farms is, for the most part, a surface of loam upon a bed of clay, and is in many places so wet, as to produce a rank, sour, and unwholesome herbage. Little attention is paid to draining, for want of which (in addition to the sourness of the grass) a great quantity of rushes prevail; the rain, and snow which falls in the winter, cannot pass through this soil with the same facility as if the sub-stratum were gravel, and therefore it frequently lies on the surface and chills the ground; all this is a cause of lessening the value of the land, which cause might be removed at a very moderate expence.

We shall here mention a sort of drain, which has succeeded to admiration, and which will be found simple and cheap, and to last from twelve to twenty years; it requires no other materials than are to be found upon the spot, and may be made as follows: Let a tolerably handy man pare off a sod, or turf, from the top of the proposed drain, a little wider than his spade, and which for correctness sake, may be previously

previously marked out by a line; this sod must be cut in the shape of a wedge, the upper, or grass side, being the narrowest; this is effected by the cutter sloping his spade in forming the sides. Let this turf be taken off in lengths of a foot or eighteen inches, and laid on one side of the drain. Let one spadefull more of mould be taken out from under the turf, then use a lesser spade to take out another depth of soil; and lastly, take a scoop somewhat narrower than the second spade, and this will form a drain diminishing from top to bottom. Let the turf then be placed upside down, let into the drain as far as it will go, pressing it a little downwards, so as to form like a keystone between the two sides of the drain: as it cannot go to the bottom, it must leave a cavity underneath, which will form the watercourse; the upper part may be filled with the mould, and sprinkled with Dutch clover, and rolled. The expence of this will not exceed one penny per yard.

Another mode of draining, or, as it is provincially called, reclaiming of bogs, is now carrying on upon a very extensive scale, upon the Marquis of Buckingham's estates in this county. This noble personage is giving all possible support and encouragement to every branch of agriculture, and his wishes and intentions are very ably seconded by the great attention and industry of Mr. Parrott. The buildings and other erections are conducted upon a neat and improved plan, and will, doubtless, in a short time prove useful models for that part of the county. The mode of draining alluded to is this: A well is dug out from six to ten feet deep, and about three feet wide, through different strata of soil, until they cut through the gravel to the quicksands; then with a machine they bore, until a spring is found, which may sometimes lie as low as from twelve to eighteen feet. The water then boils up and continues running, by which means the hole is kept open. A hollow drain is then made with

rough stones, from the lower side of the well (if there is any inequality, and if not, on that side which is nearest to the ditch or receptacle) into which the water is to be conveyed, and this about nine inches square, or larger, as the case may require; after this the well is filled up with rough stones, nearly to its top, and higher than the top of the drain, and upon these stones is placed as much of the soil which came out of the well as will fill it to the surface, and then it may be sown with white clover, or with grain, and occupied in the same manner as the rest of the field. It is scarcely credible what large tracts of land a few of these drains will completely make dry; and therefore we are happy that we have it in our power to answer in so particular a manner this important question.

Paring and Burning—is no where practised in this district that we could discover.

Woods and Woodlands—from Marlow to Fingest, and through that space which is bounded by the road leading from London to Oxford, on the south side, and by the River Thames on the north, one sixth part of the land is supposed to be covered with beech wood, and which may yield a profit of from fourteen to twenty shillings per acre per annum. These woods require but little attention, as the old trees shed a sufficient quantity of seed to keep the wood constantly full of young plants. This valuable wood is converted to a variety of purposes, one of which is the affording an abundance of fuel to that part of the county where coals are scarce.

In the parish of Wycombe there are 700 acres of common (beech) woodland. In the neighbourhood of Chesham are large thriving beech woods, under good management. In the parish of Amersham are woods of fine beech, growing upon chalk; and in the beautiful park of William Drake, Esq. there is a variety of thriving timber. The heaths in the parishes of

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Wavendon

Wavendon and Brickhill which formerly were covered with short heath, &c. were some years ago purchased by Colonel Moore of Egginton, who after leaving more than a sufficient allotment for the poor, inclosed the remainder, and planted it with Scotch firs, and other timber trees.

These are at present in a very thriving state, and promise to become of great value: they have already so much altered those formerly barren tracts, as to make them of greater value than any of the farming land in the same neighbourhood. These plantations are now in the possession of his Grace of Bedford, who has, with his accustomed taste, ordered rides to be cut through them, which add much to their beauty.

Waddon Chase is divided into several coppices, containing together 2200 acres, part of which is shut up for a certain number of years, and then laid open to the deer, as well as to the commoners, for so many years more. The coppices produce large oak, ash, and other timber, as well as underwood; but from the custom of the deer and the commoners cattle being suffered to depasture thereon unlimitedly, the young timber is at this time totally destroyed. If the deer were confined to one spot, and the chase and commons divided among the parties interested therein, it would be a very important advantage gained to the proprietors, and a great national benefit, inasmuch as the growth of oak and other timber would be encouraged. Nine years is the customary time for shutting up the coppices, and then they are laid open for twelve years; and it is lamentable to see the havock that is made among the young timber the first year these coppices are opened. The produce, under these circumstances, cannot be estimated at above three shillings per acre; but if it were inclosed, and the underwood preserved, and proper steps taken to encourage the growth, it would yield a profit of sixteen shillings an acre, besides providing a valuable supply of oak and other timber. Large sticks have formerly been sold from this chase for upwards of ten pounds per tree: it is therefore the

the more to be deplored, that the young timber should be so continually destroyed, the land being so well adapted to its growth.

Provisions.—Mutton is retailed at four-pence per pound, beef at five-pence, veal from seven-pence to eight-pence, and pork at sixpence per pound : these have been for some time the standard prices, but unless some steps are taken to increase the growth of green food, they must necessarily be raised.

Roads, public and parochial.—The high turnpike-road from London to Oxford is generally kept in very good condition ; but that which leads from Fenny Stratford to Stony Stratford is miserable indeed. Some gentlemen of the county expressed to us their determination to indict the trust ; and we were assured by the same gentlemen, that the collection at the gates, by the tolls, will afford 100*l.* per mile to be expended on the road. The cross roads, and the parochial ones too, are equally bad. In some parts that we traversed in a chaise, it took more than four hours to go a distance little more than ten miles, and that with being in continual danger of being overturned. The convexity of the roads is in very few places attended to, they are full of deep ruts, which appear to be seldom if ever pecked in ; and if these are not filled up with gravel or stones, but left to chance, it is no wonder that they are so bad. It is the more surprising, that in this enlightened age, when improvements of every description are every where going forward, and in this county, where so many opulent gentlemen and yeomen reside, that the roads should be in such bad repair ; it is what they would hardly submit to, if they would only consider for a moment how serious a tax it is upon property, but especially upon the land ; and that in conveying goods and the produce of their farms from one place

place to another, they are not only obliged to increase the strength to draw that produce, but the increased strength is also a much longer time in performing that journey, than if the roads were good.

All that is requisite in order to remedy the evil here complained of, is to pay a due and scrupulous attention to the expenditure of the tolls, and to take care that the statute duty be in no instance whatever either misapplied, or neglected. A proper system once set on foot is easily kept up, and it must rest with the more opulent men who have leisure upon their hands, to see that such a system be adopted; and that fit regulations once laid down, be strictly enforced.

Having observed to some of the gentlemen and farmers, the great injury which the roads sustain by the too general use of narrow-wheeled waggons, they replied, that with equal propriety they might object to those very broad-wheeled waggons. This doctrine being so much in opposition to the generally received opinion, we were the more desirous of information. They say that these waggons, with eighteen inch wheels, are often times so loaded, carrying from eight to ten ton weight, that ten horses are required to draw them: the materials therefore which are used for the repair of these roads, whether they be flints, stone, or gravel, are no sooner laid on, than these wheels (with this weight) working like mill-stones upon them, reduce the whole, in a very short time, to powder, and before they have had time to cement or bind, to be of any real use to the road. To prove their position, they assert, that since the introduction of these wheels, some of the roads, and particularly that which leads from Fenny Stratford to Stony Stratford, in the immediate tract of these waggons, is sunk or wore down two feet. If that be true, it may arise not altogether from the difference between fourteen inch and eighteen inch wheels, but from the natural defect in the foundation of the road, which may be a bog—and if so, it is accounted for. The canals will, however, in
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a very great degree benefit the roads, by taking off a portion of the very heavy weights which at present can only be carried by waggons, and will materially assist in draining the low and wet parts of the county.

Farm Houses and Offices.---The old farm houses, and their correspondent offices, are by no means worthy of imitation; but those erected of late years are upon a better plan, and are generally adapted to the size of the farm: some are built with brick, and covered with thatch, with proper leantoos; others are built with mud and timber for quarterings, and covered with thatch also. The dairy farms are obliged to have many out-buildings for the convenience of the cattle, as well as for milking; these are methodically arranged over the farm, in order to prevent the fields from being poached by often driving the cattle over them, and also to preserve the milk from that injury which driving them much would certainly occasion. The farm houses belonging to the common fields, are contrived *with the same regard to convenience, &c.* as the fields themselves. They are frequently placed altogether, forming the appearance of a miserable disjointed street; a sure item of the poverty of the farmers, and their bad system of husbandry.

Leases, and their Covenants.---The leases generally run for twenty-one years, confining the tenants to two crops, and a fallow, sometimes to three crops and a fallow, interdicting clover and green food; these are principally confined to the common fields. In the southern part of the county, a more liberal extension prevails; the leases run from fourteen to twenty-one years: in a few places leases are granted for three lives; the covenants require that a certain routine of crops shall be pursued in such a way as to prevent the exhausting of the soil; the growth of turnips and rape too, if fed off, clover, rye-grass, and other artificial grasses, tares, potatoes, and cabbages, make a part of the routine.

tine. Generally all the hay and straw are to be consumed on the premises, and all manure, of whatsoever-kind it may be, must be laid on the farm, and not be sold, under a penalty of twice the value. They also require that not less than a specified number of acres shall be manured annually: that all ditches and watercourses shall be scoured annually, and that all banks shall be made up in a workman-like manner: that all hedges shall be kept in repair, and that no timber, or timber like trees shall be cut down, or grubbed up, topt or lopped, without the consent of the landlord or his agent, expressed in writing.

The house, barns, and offices of every description, are to be kept in complete and substantial repair, at the sole expence of the tenant, who is to have, and to give, twelve months notice in writing; the incoming tenant is to take and to pay for all ploughings, half-ploughings, dressings, grasses, wheat, &c. at a fair valuation. There are some other restrictions, such as not to sow madder, weld, flax, hemp, woad, and hops, with the usual covenants as to time of paying the rents and observing certain duties, &c.

Manufactures.—The principal manufactures in this district are those of paper and lace. Lace is made in many parts of the county by women and children; the best hands can earn from one shilling to eighteen-pence per day. But all these manufactures together do not employ so great a number of hands as to produce any particular effect upon the agriculture of the district.

IMPROVE.

IMPROVEMENTS SUGGESTED.

IN the dairy farms, the ant-hills, which abound in many places in great numbers, require the attentive consideration of the farmer, and should be destroyed without loss of time. Many farmers, wedded to old customs, without being able very often to assign a plausible reason for their adherence to them, have with much seeming confidence assured us, that a greater quantity of grass was produced by their being there, than there would be if there were none; and that they are of opinion the grass springs earlier on the south side of those hills than it does upon the plain surface; and lastly, that they afford shelter to the young lambs. But the generally received opinion among men of discernment, is directly in opposition to this doctrine; they assert that the cattle will not touch the grass that grows on these hills, until they are starved to it, as it consists principally of coarse bent grasses and *thymus serpyllum*, and which are produced from the dry and loose state which these hills are generally found to be in. Besides, it is impossible to mow grass land in this state. Were the lands properly and regularly rolled, with a heavy roller, once or twice a year, they would be less liable to be molested by such encroachments. The methods that have been used to destroy them are as follow: The turf being pared off, the soil that composed the hill is scattered upon the surface, leaving the ground level, and then the turf is replaced. Another method (differing from the former only in this) is, instead of replacing the turf, to sow the ground with seeds. But experience shews us that both these ways have answered no good purpose, since in those very fields which were so treated several years ago, almost every spot is still visible where the ant-hills stood, nor is the herbage on those spots either so abundant, or so good in quality, as in the other parts of the field,

fill, notwithstanding every attempt to reclaim them by manure : from which it appears that there is something contained in those hills which is noxious to vegetation, and which it is the business of the farmer to remove ; and this in our opinion will be best done in the following way :---Let all the hills be entirely taken away level with the ground, and removed to some situation where they can remain for some time. A sufficient quantity of lime and dung must be mixed with them, and turned over several times during the winter, and always left rough : this the repeated turnings and exposures will correct, incorporate, and pulverize. The places where the ant-hills stood are to be turned up, a spade deep, and left as rough as possible, in order that the sun, air, frost, snow, and rain, may have the greater influence upon the soil. This operation must be begun either in August or September. In the beginning of March following, it will be found that the soil is in a mellow state, the compost of lime, dung, &c. may be laid on each of the vacant places, and worked up with the spade, and according as the season is, they may be sown with white clover, trefoil, and hay seed, if the quality of the seed be good ; and lastly, let the whole field be well bush-harrowed, and rolled with a very heavy roller.

The next improvement is evidently the draining of the lands, which, as we have before shewn, are in many places in great want of it ; but as we have pointed out, under its proper head, the modes by which that may be done, nothing more need be added here, than that it is of the greatest importance to have it done effectually—the cultivation of lucerne and potatoes, upon the dairy and grazing farms, the growth of saint-foine upon the arable farms, but particularly where the upper soil is a tolerably deep loam, and the substratum chalk.

In our Report of Surry, we laid down the particulars of what appeared to us, from our own observations, to be the best mode of cultivating this very valuable grass ; we have since had opportunities of conversing with several farmers who have been in the habits of growing it in very large quantities,

and we find that their practice accords with our observations : and which is nothing more than sowing it in drills, two feet row from row, on a soil well prepared, depositing the seed very shallow, and having the ground between the rows repeatedly hoed. If the land be very stiff, Macdowgall's hand-hoe should be used in preference to a horse-hoe, because the treading of the horse may harden the ground, whereas the other will effectually cleanse, loosen, and pulverize it. Sheep are remarkably fond of this grass. Oxen and cows are said to fatten fast upon it, especially if given to them just before it comes into blossom ; and made into hay, perhaps no food will enable working horses to go through more fatigue all the year round than this in question. The seed of it is also recommended as a substitute for oats, which it is said to exceed in the proportion of two to three. Upon the whole, then, we cannot but earnestly recommend a more general cultivation of this plant, since it has proved so valuable an acquisition to the county we have just alluded to.

Lucerne should also make a part of the husbandry of the dairy and grazing farms, and which should likewise be sown in drills, in preference to being broad-cast, as by the former mode, the plants get much stronger, yield more, and enable the farmer to keep his land clean. If the covenants in their leases will admit of it, perhaps Sir William Lee's rotation of green meat may be well worth the attentive consideration of the dairy and grazing farmers. At all events, prudence should suggest to them the propriety of being provided with a succession of resources in case of very severe winters ; and those alluded to, are, according to this experienced gentleman's accounts, not only very salutary to the cattle themselves, but also give a decided superiority to the quality of the butter.

We have observed in many parts of this district a large pond, either in the farm yard, or so near it, and so low, as

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to drain the greater part of the moisture from the dung ; by which means the dung is kept in a dry state, and requires to lie a considerable time longer before it can rot ; it consequently becomes deprived of a great portion of those saline particles which are the pabula of plants, and so efficacious a property in all manures ; and this is no unimportant consideration upon a large farm, which can always consume more manure than it is in the power of the farmer to make. Besides which, can any thing be more filthy and detrimental to the cattle, than to suffer them to drink out of such a compound of nastiness ? But this county is by no means singular in this oversight, for we have observed and regretted it in various other parts.

We must likewise add, that such water is not even fit to wash the legs of the horses after their return from work, as it must communicate a certain portion of its filth to their heels, and thereby promote the disorders to which horses in those parts are so very subject. To obviate this error, we would recommend, in the first place, that the yard for holding the dung be somewhat like a bowl, not deep, but gradually and gently sloping, in order to draw all the drainage of the yard into its center ; the straw that is thrown out from time to time, will, as it becomes trodden about, receive all the benefit of the moisture, and by being frequently turned will the sooner rot. To this yard dung may be added the mud out of ponds and ditches, together with the leaves of vegetables, which are found in a state of putrescence to contain a certain portion of vegetative salts ; chalk, the scrapings of roads, and ashes, &c. These, by being turned over two or three times at different seasons of the year, impart to each other a portion of their vegetative properties, and combine a quality of manure superior to the immediate powers of any one of them individually.

We have in the introductory part of our Report offered a few

few hints as to manures in general ; but there is one custom which we have observed in particular spots of this district, in regard to liming and marling, on which we must animadvert. It is usual in those places to lay the lime and marl in heaps, with a view to expose them to rain, frost, and snow, and to their undergoing all the solution necessary to prepare them for fertilization. Now, in our opinion, this practice must fall very short of the end proposed. For if such exposure of these manures to air and water be necessary for a part, it must be necessary for the whole ; whereas it is clear that the surface only of each heap can in the present instance be affected by those elements, while the greater bulk remains without receiving any benefit at all. We would therefore recommend, that instead of the lime and marl being laid up in heaps, for the above purpose, it be spread over the field as far as it is intended to go, and then it will be all prepared alike.

As so large a proportion of this district is in dairy farms, and as we have shewn in its proper place, that these require a number of buildings of different descriptions, to carry on that kind of business, might it not be prudent on the part of the landlord, upon the granting or renewal of a lease, to compel each tenant to plant and protect a certain number of trees, such as oak, ash, elm, abele poplar, &c. in the hedge-rows, and other convenient places, to be ready, as occasion may require, to be applied to all the purposes of those buildings. This surely deserves consideration, and we cannot but regret that such an idea seems in a manner abandoned in the late inclosures ; which is indeed rather surprising, as those who object to timber trees in hedge-rows round an arable farm, acknowledge that they do no possible injury in those hedges that surround pasture land.

With regard to the stock of the district, the opinion universally prevails, (as we have before observed) that until the open fields, as well as the wastes, shall be inclosed, and the
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humidity

humidity of the soil reduced to a state of aridity, by draining, and that a greater liberality of cropping is allowed, it will be in vain to think of changing the breed of the sheep.

The cows, oxen, and hogs, have each their peculiar merits, and appear, upon particular inquiry, to be as well adapted as may be to the ends proposed by keeping them. As North Wiltshire and Suffolk cows are famed in their respective districts, for certain good qualities, we wished to ascertain by inquiry whether or not either of these, or a mixed breed, might not be introduced with a prospect of advantage? From men who are generally opinionated, little information could be expected; but those reasons that were assigned to us, were to the following purport: The long horned, or North-Wiltshire cow, is a larger animal, but does not give more milk, nor is her milk so productive of butter, that she requires more food, and in a state of barrenness takes a longer time to fatten. With respect to the Suffolk breed, or polled cows, it is admitted that they yield a larger portion of milk, but the proportion of cream is not greater; and as they do not cultivate either cabbages, turnips, or saintfoine, as a dependance, so these are found to fall off more or less, as the winter season is more or less severe. How far these reasons are conclusive, these farmers ought to be the best judges.

Salt has been strongly recommended to us as an antidote against the rot in sheep.

We have, in the answer to the query on woods and woodlands, lightly noticed the plantations on Wavendon Heath, in common with the other woods; but on reconsidering the subject, we think the improvement of that heath of so much consequence to the general agriculture of the county, as to deserve a more particular description. With permission therefore of the Board, we shall state that in the parish of Wavendon there is a heath containing 742 acres, whose soil is composed of various coloured sands of great depth, and
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before the inclosure which took place a few years since, could not be estimated at more than two shillings an acre, being covered with short heath only, which was cut by the poor people for fuel, and was thought so barren as to be incapable of any improvement. But Colonel Moore of Egginton, with much judgment, personal attention, and perseverance, has changed this once miserable spot to a beautiful sylvan scene.

At the same time that we mention its ornamental beauties, we can also with much confidence say, that in a short period it will become more profitable to the proprietor than any of the farming land in the neighbourhood. Being possessed of indisputable facts, we are enabled to speak to its present thriving state, and also to judge of the great advantage that will be derived to that part of the county, not only from the shelter which these plantations will necessarily afford, but also by the great quantity of fuel and timber that will be increased, benefiting the country, in proportion as the quantity of each produced is of great value, and that which was produced before was of none. As this kind of soil is generally accounted barren, we think it necessary to state in this place, and the observation is worth recording in every survey throughout the kingdom, particularly in Surry, what are at this moment growing upon this soil, which in some parts is inferior even to Bagshot Heath.

Nineteen acres of Wavendon Heath were inclosed and planted with three-year old Scotch firs, in the year 1778, and the number amounted to 51,376, for which the Honourable Society of Arts, Manufactures, and Commerce, &c. bestowed upon the Colonel the honorary premium of the gold medal. The plants throve uncommonly well, and have been thinned out at various times, which thinnings were converted into faggots, and sold for one guinea per hundred. No exact account was kept of the money received for these thinnings; but.

but Colonel Moore's assurance will not be the less doubted, when he declared that they have very considerably more than repaid him all his expences of inclosing, planting, &c. The number now remaining in a very thriving state, are 17,125, and are from twenty to twenty-eight feet in height, (along one valley they exceed thirty-five feet in height) and are worth, upon a very moderate estimation, the sum of 6841. It must likewise be noticed, that the increasing value, from their present growth, advances in a much more rapid manner than it did while the plants were young. In one part of this property is a fuller's earth mine of great extent and value.

The extent of this heath, as we said before, is about 742 acres; 300 acres of which were allotted, upon the inclosure, for the use of the poor. Several acres of similar soil, Colonel Moore has sown with French furze, which is cut every third year. In order to come at the value of an acre of this crop, we measured a rod of ground, and the faggots cut therefrom amounted to 30, which multiplied by 160 gave 4,840; but as six score are allowed to the hundred, it reduces the number to 3,840, which at 8s. a hundred give 15l. 17s. 2d. deduct 2l. 8s. od. the price for cutting and tying the faggots, &c. 8s. more the rent of the land, and it will leave a profit of 12l. 11s. 2d. for one acre for three years, or 4l. 3s. 8½d. per acre, per annum. The common profit attached to land employed in the growth of furze, can seldom be estimated so high, as very little care is paid to such crops, although it is here proved beyond dispute to be a very profitable one; but very greatly so if the land is considered. It may however be owing partly to the time and partly to the mode of cutting it, which shews that no crops can be profitably cultivated without some attention. It is cut in February, and much caution is observed in seeing that the men have good tools, each man being provided with three fresh ground every morning. The instruments are applied as close

to the ground as possible, and the stem of the furze cut clear off, with the edge of the tool turning upwards. The Colonel suffered a part of one of these fields to be cut in the usual way, viz. cutting it within four or five inches of the ground indiscriminately, and the stubbs left ragged, by which the sun, wind, and wet penetrated and destroyed a great number of the plants. The evident superiority of the Colonel's method over the other is very manifest. The same observation holds good with respect to the cutting of under-wood. Quickset hedges, cut down in the same way upon this poor sandy soil, made shoots the first year after cutting, from three to five feet high, and in number from five to twenty from each stool. Holly on the same soil made shoots of twelve feet high in three years.

OBSTACLES TO IMPROVEMENTS.

AS the obstacles to improvements in agricultural pursuits, in a general sense, are not merely local, it may happen that similar circumstances may be observed in different districts, and the same arguments be used for obviating them, by those several gentlemen who have been employed by the Board.

Those circumstances will not deserve less attention, nor the arguments have less weight, if it should be so; on the contrary, it will be a convincing proof that such evils do exist in a very serious point of view, or else so many gentlemen, so widely scattered, and without any knowledge of, or previous communication with each other, could not have noticed them.

Without considering what may be the obstacles found elsewhere, it is our business to point out such as do exist in the county under consideration. And we flatter ourselves we have in fact pointed them out already, in the course of this Report; and also shewn how they may be removed! We shall, therefore, as we wish not to make our Report tedious by a repetition of the same arguments, content ourselves with just recapitulating what appears to us to be the main obstacles to improvements in this county. And these are:

1. The want of inclosures, both of the wastes and common-fields.
2. The neglect of the magistrates to enforce a proper and legal care of the high roads.

3. Short

3. Short leases, with those ridiculous restrictions laid upon the tenant with respect to crops.

And lastly, The uniform inconveniency of the present system of the tithe laws.

On the three former we have given the opinions of those gentlemen and farmers with whom we have consulted, (in conjunction with our own) under their respective heads, to which we beg leave to refer; and to conclude this Report with a few hints upon tithes.

We take the liberty to quote, in this place, the words of a justly celebrated writer (Dr. Adam Smith) whose observations upon agriculture are extremely apposite in a discussion of the points in question.

"The rent of land," says he, "it may be thought, is frequently no more than a reasonable profit or interest for the stock laid out by the landlord upon its improvement. This, no doubt, may be partly the case upon some occasions; for it scarcely ever can be more than partly the case. The landlord demands a rent even for unimproved land, and the supposed interest or profit upon the expence of improvement, is generally an addition to this original rent. Those improvements, besides, are not always made by the stock of the landlord, but sometimes by that of the tenant. When the lease comes to be renewed, however, the landlord commonly demands the same augmentation of rent as if they had *bona fide* been all made by his own."

"The rent of land, therefore, considered as the price paid for the use of the land, is naturally a monopoly price. It is not at all proportioned to what the landlord may have laid out upon the improvement of the land, or to what he can afford to take, but to what the farmer can afford to give. Again he says, "the rent of land not only varies with its fertility, whatever be its produce, but with its situation, whatever be its fertility."

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" Good roads, canals, and navigable rivers, by diminishing the expence of carriage, put the remote parts of the country more nearly upon a level with those in the neighbourhood of the town. They are upon that account the greatest of all improvements. They encourage the cultivation of the remote, which must always be the most extensive circle of the country. They are advantageous even to that part of the country. Though they introduce some rival commodities into the old markets, they open many new markets to its produce."

And in treating upon the effects of inclosures, he says, " The advantage of inclosure is greater for pasture than for corn; it saves the labour of guarding the cattle, which feed better too when they are not liable to be disturbed by their keeper or his dog. It is convenient also for the maintenance of the cattle employed in the cultivation of the corn, and its high rent is, in this case, not so properly paid from the value of its produce, as from that of the corn lands which are cultivated by means of it."

But these are not the only obstacles to the common-field husbandry; the slovenly operations of one man are very often of serious consequence to his neighbours, with whose property his lands may lie, and generally do lie very much intermixed. Every one is aware of the noxious quality of weeds, whose downy and winged seeds are wafted by every wind, and are deposited upon those lands which are contiguous to them; and which before were perhaps as clean as the nature of them would admit, to the manifest injury of the careful and attentive farmer. Inclosures would, in a certain degree, lessen so great an evil: they would also prevent the inroads of other people's cattle, as particularized in the parish of Wendover, and in which one man held eighteen acres in thirty-one different allotments.

Having

Having pointed out some of the obstacles to the common-field husbandry, we proceed to those of the wastes. From what has been said in answer to its respective query, it will appear, that in some instances, such as the expence and difficulty of obtaining bills of inclosures, the badness of the roads, &c. the same arguments that are used as to the common-field will here apply also. But as the property and right of commonage of both differ, so also will the difficulties vary.

We have endeavoured to make it appear, that it is impossible, taking one waste with the other throughout the county, that cattle indiscriminately can live more than seven or eight months in the year upon them; indeed when we say live, we exceed the matter of fact, it is no more than a state of bare existence, and therefore they do not improve: this being the case, these commons cannot be worth, perhaps, a fortieth part of inclosed land. If we make out this argument satisfactorily, and as the right of commonage is nearly if not entirely nominal, the land-owners would, without one acre of common, get the same rent for their land that they now do with it; and if so, are not all those wastes just so much loss to the community? Most certainly they are; but how will they be remedied? Why, remove the obstacles from the common-fields by inclosure, and these will furnish an ample return of grain, and then the difficulties that are now in the way of inclosing the wastes, will be the more easily surmounted. It will follow, that each of these (that is, common-field and waste) deserves the first consideration of the Board: their importance is strongly, and we trust clearly pointed out, in our dissertation upon those queries that applied to them.

It has been observed, that in the northern part, so careless are the farmers in cleaning out the ditches, and keeping open the drains and other watercourses, that however disposed

some may be to carry on so desirable a work, and by so doing act the part of good neighbours, (not to notice the good example its sets) yet, while one or more obstinate men persist in their refusal to do the like, the end which the prudent farmer had in view of draining his land, is perhaps entirely frustrated, and the difficulty to persuade or enforce a compliance therewith, is a very material obstacle to improvements. In all cases, therefore, where these obstacles are persisted in, whether through obstinacy or from any other cause, the magistrates might be empowered to receive the allegations of the parties aggrieved, and order such steps to be taken in the premises, as to them shall appear right.

Tithes are every where considered as a leading obstacle to improvements in agriculture; and although there are very few instances, indeed, in this county, where any pointed difference has arisen between the clergymen and their parishioners, yet as that only proves the force of custom and local circumstances, it does not in the least take away from the established truth of tithes being a great grievance in the hands of lay impropiators. On the contrary, daily experience shews us that commuting of tithes, even at a very advanced price, is seldom acceded to by laymen; and the difficulty, not to say unreasonableness of paying for every improvement in kind, is attended with great personal inconvenience, and considerable public loss.

The farmer who goes on in the old beaten tract of his ancestors, pays but a very small proportion, compared to the man who aims at improvement; to obtain which, he is necessarily at greater expence, and if his produce is proportionate to his expence, in the same ratio does the burthen of tithes increase also: this is a most vexatious grievance, and in no other instance whatever is there a parallel circumstance.

Is the ingenuity of the mechanic (be it in what line it may) subject to such oppression, at least in such a degree, as to deprive him of a considerable part of the profits arising from his ingenuity, although that might be said to come within the meaning of personal tithes? Why then (if the enforcing of these is thought to be an obstacle to the improvement of every art) are predial tithes allowed to stand in exception?

Besides, so undefined is what constitutes great and small tithes, that the farmer is frequently at a loss to know to whom the tithe is due, whether it be to the rector, or whether it be to the vicar; and hence fresh difficulties and fresh perplexities present themselves to him, and not unfrequently to them.

Formerly the balks, meres, stubble, and aftermath, were considered by the common law and custom of the realm as not titheable, but modern determinations have settled the contrary.

It may be laid down as a position, that whatever profit arises to the cultivator of the soil by the force of superior ingenuity and industry, should be held sacred both by the church and government. For if it is otherwise, it discourages the improvement of the soil; and thereby the church prevents the future increase of her tithes, and the government the future increase of its taxes.

The tithes, therefore, as exacted in some places, is, to all intents and purposes, as great an obstacle to the improvement of agriculture, as the *taille* had used to be in France.

Land-owners occupying their own lands are generally disposed to try experiments, and they can best afford to do it. If those experiments succeed, the community are benefited; and if they fail, the loss may possibly be moderate, and will affect only themselves: but if they succeed, and that profit

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is to be taxed one tenth, it is, to all intents and purposes, a drawback upon industry.

The landlord cannot, therefore, venture to make the most important, which are generally the most expensive improvements; nor the tenant raise the most valuable, which are likewise the most expensive crops; so long as the church, which adds nothing to the expence, runs away with so large a share of the profits.

In whatever point of view tithes are considered, whether it be in the hands of the clergy, which is placing them in the best situation, and where they were originally designed to be; or whether they are in the hands of the lay proprietor, who, generally speaking, has no other interest in the parish, and therefore less mindful of being upon good terms with the inhabitants; they are in either case strong obstacles to every improvement upon agriculture.

CONCLUSION.

IN drawing out this Report, a variety of combinations presented themselves; in some of which we have been minutely particular, and in most of them diffuse. If, from what we have stated, any good shall arise to individuals (and consequently to the community, which must in a certain degree be benefited) we shall feel a particular gratification, that under the auspices of a Board composed of the first characters in this kingdom, our humble endeavours have answered some good purpose, in aiding and extending the views for which that honourable Board was appointed; and promoting the benefits, which, we have flattered ourselves, may be derived to the public from its institution.

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may be derived to the public from its institution, and promoting the benefits which it may derive from itself, and the views for which that honorableness Board was appointed, have answered some good purposes, in acting and extending the character in the schools, our limited endeavours are, that may in the exercise of a Board composed of the citizens be benefited, we shall find a particular gratification consequent to the community, which must in a certain manner we have stated, any good shall arise to individuals from what we have stated, and in most of them, in fact, from their personal labors, in some of which we have been distinguished, and this, however, a variety of conditions.

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